UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,716	02/10/2000	Kazuichi Ooe	1046.1209/JDH	4289

21171 7590 11/10/2009

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER	
TSEGAYE, SABA	
ART UNIT	PAPER NUMBER
2467	

MAIL DATE	DELIVERY MODE
11/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/501,716	OOE, KAZUICHI	
	Examiner	Art Unit	
	SABA TSEGAYE	2467	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 February 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment is filed 06/23/09. Claims 12-23 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 112

2. Claims 12-17 and 19-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12:

Lines 10 and 16, it is not clear whether "a particular other communication device" refers to a communication device or other communication device cited in line 2.

Claim 15:

Line 5, it is not clear whether "a plurality of different communication modes" refers to a different communication modes cited in line 2.

Line 12, the phrase "under a particular communication condition…"is vague. It is not clear what is referred by "a particular communication condition".

Claim 19, line 14-15, it is not clear whether "a particular other communication device" refers to a communication device or other communication device cited in line 2.

Claim 23, lines 1-2, the phrase "wherein communication speeds" lacks antecedent basis.

Claim Rejections - 35 USC § 102

3. Claims 12, 13, 19, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Achour et al. (US 6,363,260 B1).

Regarding claim 12, Achour discloses, in Fig. 2, a communication method of performing communications between a communication device (160) and other communication device (162, 164, 168), the method comprising:

measuring communication performances of communication (power Rx) between the communication device and other communication device (162, 168, 164) in each of a plurality of different communication modes (cellular mode or AMPS mode), under a plurality of different communication conditions respectively (measuring the levels of the signals received and determining the quality of the communication channel [column 3, lines 51-56]);

determining, as threshold a communication condition (threshold C: which is power is measured in dBm, figs. 4 and 5, steps 304, 404) that the corresponding measured communication performance of one or the communication modes (CDMA (initial mode); step 302) exceeds a measured communication performance of other communication mode (to determine if the timer t1 had been previously started; if the timer t1 expired [steps 308, 312] or determine timer T2 already started and timer T2 expired [steps 408, 412]) based on a result of the measurement (switching to from the first mode to the second mode [steps 314, 414]) column 6, lines 61-column 7, line 63; column 8, line 25-column 9, line 39); and

selecting, before performing actual communication between a particular other communication device, a communication mode (mobile phone, in idle mode, monitors a first performance level and a second performance level [initial acquisition 302]) that the communication performance under a compunction condition of the actual communication exceeds the communication performance of the other communication mode (steps 308, 312) as an optimum communication mode by comparing the communication condition of the actual

communication and the determined threshold (to determine if the timer t1 had been previously started; if the timer t1 expired [steps 308, 312] and if RX<C[threshold]); and performing communication between a particular other communication device in the selected communication mode (monitoring if a first and a second performance levels exceed their respective thresholds and if the timer exceeds a predetermine duration [column 7, lines 52-54; column 9, lines 58-63])

Regarding claim 13, Achour discloses wherein the measuring of communication performances and the determining of the communication condition are performed for each communication device, when the communication device communicates with a plurality of the other communication devices (see fig. 2; claim 1).

Regarding claim 19, Achour discloses, in Figs. 1 and 12, a method for optimizing communication condition of a communication between other communication devices (see Fig. 2), the method comprising:

communicating, on a communicating line, with the other communication device in both a first communication mode (CDMA) and in a second communication mode (AMPS) that is different from the first communication mode, under a plurality of different communication conditions (pilot signal strength (Ec/Io) and pilot received power (RSSI)) respectively;

measuring a communication performance in the first communication mode (if the first performance level falls below a first threshold and if timer is running the first performance levels exceed the thresholds as shown in fig. 4) and a communication performance in the second communication mode under each of the different communication conditions (if the second

performance level falls below a second threshold and if timer is running the second performance levels exceed the threshold, as shown in Fig. 5);

determining, based on the communication performances measured under each of the different communication conditions {as shown in figs. 4 and 5}, a communication condition (if RX<C) in which a communication performance of the first communication mode exceeds a communication performance of the second communication mode (if the timer exceeds a predetermine duration); and

selecting, among the first communication mode and the second communication mode, a communication mode corresponding at a particular communication condition and a particular other communication device, for actually communicating with the particular other communication device, under the particular communication condition, that the communication performance exceeds that of the other communication mode, corresponding to communication condition (column 1, line 61-column 2, line 6; column 7, lines 55-63; claims 1, 8 and 12).

Regarding claim 21, Achour discloses further comprising: storing the determined communication condition, as a threshold, for each of the other communication devices, and referring to the stored threshold when selecting the communication mode to communicate with the other communication device (a list of preferred service provider systems is dept in a preferred roaming list. Roaming list is a list of frequencies and bands used in different parts of the country; see abstract; column 7, line 55-column 8, linel2).

Regarding claim 22, Achour discloses further comprising: storing a relationship between communication condition and a communication mode to be applied for a communication with

the other communication device; wherein when selecting a communication mode, referring to the stored relation ship and determining a communication mode that corresponding to a certain communication condition (a list of preferred service provider systems is dept in a preferred roaming list. Roaming list is a list of frequencies and bands used in different parts of the country; see abstract; column 7, line 55-column 8, linel2).

Claim Rejections - 35 USC § 103

4. Claims 14, 15, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Achour et al. in view of Vembu (US 6,259,928 B 1).

Regarding claims 14, 15, 20, Achour discloses all the claim limitations as stated above; except for the communication condition is a size of data.

Vembu teaches determining system performance based number of frame (size of data) received with errors or on the number of errors in the received signal. (See Fig. 3, steps 308, 312; column 10, lines 1-6).

It would have been obvious to one ordinary skill in the art at the time the invention was made to incorporate size of data, such as that suggested by Vembu, to determining communication condition disclosed by Achour. One of ordinary skill in the art would have been motivated to do this because the size of data allows the receiver to know if a packet fails to transmit, or if the packets get transmitted out of sequence.

Regarding claim 18, Achour discloses all the claim limitations as stated above, except for a computer readable medium.

However, Achour discloses, in fig. 1, a device 106 that includes memory 104 operated by a CPU. Therefor, it would have been obvious to one ordinary skill in the art at the time the invention was made to use computer readable medium. The benefit using computer-readable medium is that programs can be changed and upgraded and new futures are added easily than hardware changes.

10. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Achour in view of Vembu as applied to claim 15 above, and further in view of Liu et al. (US 6,252,900 B1).

Achour discloses all the claim limitations as stated above, except for a table that stores a relationship between a compunction data size and a communication mode.

Liu teaches a communication system that include table 560 that stores a relationship between communication data size (number of frames) and a communication mode (column 18, lines 12-47). It would have been obvious to one ordinary skill in the art at the time the invention was made to use a table, such as that suggested by Liu, in the system of Achour in view of Vembu in order to provide an efficient system and increase transmission speed.

Response to Arguments

5. Applicant's arguments with respect to claims 12-23 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues (Remarks, late 7) that *in Achour there is no specific disclosure as to how and on what criterion the communication system is decided at the start-up of*

communication. Examiner respectfully disagrees. Achour clearly discloses that the mobile station that is communicating with a first service provider system is in idle mode, monitors a first and a second performance levels.

Applicant argues (Remarks, page 8) that Achour does not disclose *"measuring a communication performance of communication between the communication device and the other communication device in each of a plurality of different communication modes, under a plurality of different communication conditions respectively*." Examiner respectfully disagrees. Achour clearly discloses that when the mobile phone is in an idle mode, first and second performance levels are monitored. As sown in figs. 4 and 5; the mobile phone determines whether it is receiving sufficient total power to permit a satisfactory level of performance by the cell phone... if not enough total power is reaching the mobile phone, it exits the first service provider and monitors the pilot strength and the pilot received power of other providers to find a better service provider system (column c lines 30-49).

Further, Applicant argues that Achour also does not disclose *"determining as threshold a communication condition that the corresponding measured communication performance of one of the communication modes exceeds a measured communication performance of the other communication mode based on a result of the measurement.*" Examiner respectfully disagrees. Achour discloses that If the first performance level falls below a first threshold or the second performance level falls below a second threshold a timer started… if the timer runs long enough to exceed a preset time limit, the mobile phone switches to another service provider system (summary; Figs 4 and 5).

Examiner also notes that similar arguments were presented regarding claims 18 and 19. The Examiner takes the same position.

Page 14, Applicant argues that *Vembu teach that determining not the number of frames, but the number o frames with errors, the number of frames received with errors is different from a size of data. Vembu does not each or suggest "the communication condition is a size of data.*" Examiner respectfully disagrees. Vembu teaches that receiver determines how many frames of the **past X number** of frames were received in error (steps 304-308); and based on the determination the communication mode is selected (steps 312, 316 and 326). Vembu also teaches the receiver determines **how many consecutive frames** where received with errors. If the number of consecutive frames received with errors meets or exceeds a predetermined limit, burst mode is selected (column 7). Examine believes that the claims, given their broad reasonable interpretation, read on the references applied.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SABA TSEGAYE whose telephone number is (571)272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on (571) 272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Saba Tsegaye
Examiner
Art Unit 2467

/S. T./
Examiner, Art Unit 2467

/Hong Cho/
Primary Examiner, Art Unit 2467